Economic Integration in Europe: Its Effects on Canada

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Abstract

For the past half century, European countries have undertaken a series of measures that have liberalized trade and factor flows among member states of the European Union (EU). They have also harmonized various government policies, including external commercial policy and monetary policy. This increased integration has greatly expanded economic transactions within Europe, possibly at the expense of trade and factor flows with non-member states, including Canada. In this paper, we examine how Europe’s increasing economic integration has affected its trade with Canada. Based on a Canadian export share model that controls for relative price competitiveness and relative income, we find evidence that increased European economic integration has reduced Canada’s relative exports to the EU. This decline can be attributed almost completely to a dramatic fall in the relative importance of Canadian non-energy commodity exports to the United Kingdom. Moreover, when increased Canada-United States trade is accounted for, Canada’s export share to the EU, excluding the United Kingdom, has been stable over the past fifty years while that of the UK has trended down. This shift in UK imports was likely driven primarily by Britain’s co-founding of the European Free Trade Association in 1960 as well as that country’s accession to the European Community (EC) in 1973 which left Canada, and other Commonwealth countries, such as Australia and New Zealand, without their pre-existing preferential trade treatment.

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1. Introduction

For the past half century, European countries have undertaken a series of measures that have liberalized trade and factor flows among member states of the European Union (EU). They have also harmonized various government policies, including external commercial policy and monetary policy. As a result of these changes, the EU has extended beyond the definition of a common market and is approaching an economic, and possibly a political union. Consequently, this increased integration has greatly expanded economic transactions within Europe, possibly at the expense of trade and factor flows with non-member states, including Canada. Accordingly, the purpose of this paper is to examine how Europe’s increasing economic integration has affected its trade with Canada.

From a historical perspective, the increase in postwar economic integration in Europe began in earnest with the 1957 Treaty of Rome and was gradually intensified over the years by legislation such as the Single European Act of 1987. This latter act in particular caused concern that the removal of barriers to trade between European nations could come at the expense of extra-EU trade partners. This apprehension regarding the construction of a “Fortress Europe” was especially pronounced among U.S. and Japanese authorities during the late 1980s and early 1990s (Aho 1994).1

From the Canadian perspective, following the United Kingdom’s initiative to co-found the European Free Trade Association (EFTA) in 1960, concerns were expressed regarding the possible impact on Canadian exports of the United Kingdom’s prospective entry into the European Economic Community (EC) (Wilgress 1962, Nadeau 1985, Hart 2002).2 Indeed, at the

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1. Such concerns were significant given that the United States and the EU, in particular, maintain the largest bilateral trading and investment relationship in the world, with investors from the EU supplying a substantial amount of capital to the United States.

2. The European Free Trade Association (EFTA) originally included six countries in addition to the United Kingdom, namely Austria, Denmark, Norway, Portugal, Sweden, and Switzerland. The European Economic Community (EC) originally included six countries, namely Belgium, Luxembourg, France, the Federal Republic of Germany, Italy and the Netherlands. See Section 2 for more details.
time, the United Kingdom was Canada’s second most important trading partner after the United States, and many Canadian exports, along with those of other Commonwealth countries (i.e., Australia and New Zealand), enjoyed long standing preferential treatment in the British market.³ In the end, the United Kingdom joined the European Community (EC) in 1973, at which time the special access afforded to Canadian exports in the British market came to an end. Tariff preferences were lost, and from that point on, Canadian exports faced the European Community’s common external tariffs, while competing imports into the United Kingdom from other members of the Community were admitted free of tariffs.

Partly in response to these concerns, a significant body of literature has grown to analyze the impact of increased European integration on trade and factor flows. Most of this research has focused on two central issues: the effect of commercial integration (or customs unions) and the effect of currency integration (or monetary union) on trade and real GDP. The latter aspect has come under increased focus since the advent of the European monetary union (EMU) in 1999.⁴

With regard to the effects of the European Community on the welfare of European countries, Belassa (1967, 1975) provides evidence of net trade creation resulting from the Common Market.⁵,⁶ Similarly, a 1995 United Nations study finds evidence of trade creation between EFTA and EC countries following the liberalization of trade between the two country groups in 1973, however, this trade creation was accompanied by some trade diversion in the case of North America. Haaland (1993) investigates the welfare effects of the European Community and the European Free Trade Association, finding evidence of positive welfare effects for the EFTA and EC countries, with the former area benefiting the most, and some degree of trade diversion for the US and Japan. Similar conclusions are reached by Haaland and Norman (1992) and Winters (1997). In a survey of the literature regarding the economic effects of EC integration, Ohly (1993) argues that the consensus view suggests the overall effects of EC integration are positive. Papadaki (1998) evaluates the welfare effects of the Europe 1992 program (i.e., the removal of non-tariff barriers) in a general multicountry, multisector equilibrium model. Her results show that all EU countries are likely to benefit from the completion of the single European market (Common

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3. In the mid-1940s, the UK’s share of Canadian exports was about 27 per cent while that of the U.S. was 37 per cent. In 2003, UK’s share was 1.6 per cent and U.S.’s share was 86 per cent.
4. For a brief but thorough literature review on this issue, see Andrew Rose (2004) and references therein.
5. Balassa uses an ex-post income elasticity analysis of Common Market trade (income elasticities of demand for imports of all commodities). It has since been argued that income elasticities varied substantially pre- and post-integration, making Balassa’s results sensitive to the sample period.
6. In Viner’s framework, as discussed by Clausing (2001), trade creation occurs when the lowering of tariffs allows partner country imports to replace high-cost domestic production; this improves welfare. Trade diversion, occurs when the removal of tariffs causes trade to be diverted from a third country in favour of trade with the partner country, despite the fact that, were the countries treated equally, the third country would be the lower cost source of imports. Overall welfare increases when gains to consumers surplus outweigh the loss of tariff revenue and producer surplus. Welfare depends therefore on the extent of trade creation relative to trade diversion.
Market) with Italy, Greece and the United Kingdom benefiting the most (i.e., seeing the largest gains in welfare) with limited degree of trade diversion for the rest of the world.\textsuperscript{7} Focusing more specifically on the effects of Western European integration on third-party countries, Head and Mayer (2001) find evidence of an important increase in the difficulty faced by American and Japanese producers in accessing the European market during the early 1980s. At the same time, the authors find evidence of a gradual fall in border effects for intra-European trade.\textsuperscript{8}

Studies regarding the economic impact of increased European integration on Canada are very limited, likely because the European Union accounts for a relatively small share of the Canada’s total trade (5 per cent of total Canadian exports and 10 per cent of total Canadian imports as of 2003). Moreover, even though the level of trade volume between Canada and the EU has continued to grow during the past fifty years, it has risen at a slower rate than Canada’s trade with other regions of the world. Consequently, overall trade between Canada and the EU has fallen as a share of each area’s total trade. Nonetheless, although this share is only a small fraction of that of the United States, the European Union remains economically important as Canada’s second largest trading partner.\textsuperscript{9}

One of the few existing studies on EU integration and Canada-EU trade is a Canadian Standing Senate Committee on Foreign Affairs report presented in July of 1996 entitled \textit{European Integration: The Implications for Canada}. This eighty-six page report identified several potential implications for Canada regarding Europe’s upcoming monetary union, including: the effect of EMU on the Canadian dollar exchange rate, the effect on trade and investment patterns between Canada and the EU, implications for the balance of power in international economic policy coordination forums such as the G-7, and the spectre of increased protectionism including the creation of a “Fortress Europe”. The report then went on to make twenty-five related recommendations. Of particular interest, the Committee suggested that studies be undertaken to assess Canada–EU trade patterns and to discover in which sectors of the EU market Canada is losing/gaining market share. The Committee also recommended an analysis of the potential impact on Canada of future EU enlargement, with a focus on potential “trade and investment diversion.” Finally, the Committee recommended that the Department of Foreign Affairs and

\textsuperscript{7} As an aside, similar welfare analyses have been performed on the topic of Canada-United States economic integration. For example, Clausing (2001) examined the effects of the Canada-United States Free Trade Agreement on trade patterns at the commodity level and found substantial trade creation effects resulting from tariff removal with little evidence of trade diversion with other countries.

\textsuperscript{8} Head and Mayer use the border-effect methodology over the 1976–1995 period.

\textsuperscript{9} In terms of individual countries, China is currently Canada’s second largest trading partner in terms of total merchandise trade, having overtaken Japan in 2003. However, Japan remains Canada’s second largest export market while China now holds that position in terms of Canadian imports. The U.S. retains the top ranking.
International Trade, in consultation with the Bank of Canada and the Department of Finance, undertake a study on the effects of the EU’s economic and monetary union on Canada.

The following year, the Department of Foreign Affairs and International Trade released a study entitled *European Monetary Union and its Implications for Canada*. This study, by Robert Hannah (1997), examined the proposed EMU and concluded that its implications for Canada would likely be minor. Indeed, the study suggested that, with time, Canada would probably be perceived increasingly as part of a North American market in a tripolar financial world. In a similar paper, Crowley (1997) explores some possible developments in the EU over the next decade, tentatively concluding that the direct effect of EMU would likely be an increase in intra-EU trade. In addition, the study noted that EMU could cause a reduction in trade with third-party countries outside the EU.

Updating their 1996 report, the Standing Senate Committee on Foreign Affairs presented a report in 1999 entitled *Europe Revisited: Consequences of Increased European Integration for Canada*. Overall, the Committee concluded that the short-term direct impact of EMU would likely be limited. It was also observed that, in the months after the launch of the euro, the Canadian dollar had not been affected by the new currency. The study also suggested that, given Canada’s relatively small share of trade with EU members, Canada’s trade would likely become more hemispheric in nature. Nevertheless, the report argued that, in the long run, EMU could cause structural reforms in Europe, prompting beneficial trade creation with open economy partners such as Canada.10

The report also recommended analyzing a possible Canada-EU Free Trade Agreement, focusing on the implications of tariff elimination. In response, Cameron and Loukine (2001a) explored this issue, concluding that Canada and the EU would both benefit from the elimination of tariffs. In a separate but related paper, Cameron and Loukine (2001b) also examine the implications of European Union enlargement for Canada. Their results suggest that EU enlargement would not have a large impact on Canada given the relatively small size of pre-existing trade between Canada and the central and eastern European countries in question. Nevertheless, it is possible that EU accession could cause either trade diversion or trade creation effects for Canada. The former could occur if the EU turned their trade toward the acceding countries at the expense of Canada. On the other hand, trade creation could occur if EU wealth was increased through EU enlargement, thus allowing European countries to trade more with Canada. Empirical assessment of this question, however, will have to await the release of sufficiently long time series data.

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10. Merchandise trade as a share of GDP has been trending upward for Canada (from 46 per cent in 1980 to 61 per cent in 2003), a sign of more open trade. On the other hand, this ratio for the European Union remained around 28 per cent over the same period.
While adopting a general definition of economic integration, this present paper aims at contributing to the existing literature by documenting the stylized facts and presenting preliminary empirical evidence, using an export share model, regarding the effects of increased European economic integration on Canada. To our knowledge, no existing studies have attempted to empirically assess the effects of increased European economic integration on Canada. The few studies mentioned previously that do discuss European economic integration from a Canadian perspective focus primarily on an analysis of the stylized facts.

In general, examination of the stylized facts suggests that, while Canada’s trade with the EU continues to rise in terms of levels (in real terms), the EU’s share of total Canadian trade has been declining since the 1950s. More specifically, while the EU’s share of Canadian imports has remained roughly level over this period, the EU’s share of Canadian exports has fallen significantly. This decline coincides with a dramatic fall in the relative importance of Canadian non-energy commodity exports to the United Kingdom. In terms of investment, the EU’s share has been relatively stable over past decades, while, at the regional level, the investment story is similar to that discussed above for trade flows. Namely, Canada’s investment in the UK has declined markedly as a share of total Canadian direct investment in the EU.

What has caused the decline in the EU’s share of Canadian exports? Can it be accounted for solely by the fundamental determinants of trade performance, or does Europe’s increasing economic integration also play a role? Admittedly, the issue of trade creation and trade diversion as a result of Europe’s increasing economic integration is best addressed by examining the trend in EU imports within member countries and with other non-EU trading partners. In such a case, trade diversion would occur if Europe’s increasing economic integration, in particular, the removal of tariffs across EU member countries, caused trade to be diverted from non-EU trading partners in favour of EU member states. A more sophisticated counterfactual experiment would be necessary...

11. In general, this concept of integration refers to an economic environment where different sectors of an economy or, more generally, different countries work together efficiently and are mutually interdependent. However, other more narrow definitions of the term “economic integration” also exist in the literature. For instance, literature dealing with the theory of customs unions usually defines the term “economic integration” in reference to a reallocation of resources and/or production across countries resulting from the removal of trade restrictions. Such a reallocation is based on each country specializing in the products or lines of production in which it has a comparative advantage. Alternatively, the term “economic integration” may also be defined as part of the economic development process. In this framework, financial integration, commercial integration (or customs unions), and real capital market integration are some examples of types and stages of economic integration. In this context, monetary integration and common currencies can be interpreted as the highest level of economic integration.

12. Canada’s merchandise trade represents 85 per cent of its total trade. In this paper, we will therefore use the term “trade” to refer specifically to merchandise trade. Note also that the EU’s share of Canada’s total services trade has been declining over the last twenty years.

13. In the analysis of this paper, the term “European Union” refers to the EU15 (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom) unless otherwise specified.
to assess such a welfare effect of tariff removal. This issue is, however, beyond the scope of our analysis.

Based on a Canadian export share model which controls for relative price competitiveness and relative income, we find some evidence over the 1972-2003 period, consistent with the stylized facts, that increased European economic integration has reduced Canada’s relative exports to the EU. This decline can be attributed almost completely to a dramatic fall in the relative importance of Canadian exports to the United Kingdom. Moreover, these findings stand when increased Canada-United States trade is accounted for.

The remainder of this paper is organized as follows: Section 2 describes the major institutional changes that contributed to increased economic integration in the European economy over the past several decades and discusses the evolution of trade relations between Canada and the European community over the same period. Section 3 reviews the stylized facts regarding the trade and investment relationship between Canada and the European Union. Section 4 provides empirical evidence on the effect of increased European integration on Canada’s relative exports to the EU. Section 5 concludes and suggests areas for future research.

2. Economic Integration in the European Union and Trade Relations with Canada

This section briefly describes the major institutional changes that contributed to increased economic integration in the European economy over the past several decades. It then discusses the evolution of trade relations between Canada and the European community over the same period.

2.1 The evolution of economic integration in the European Union

Europe’s present drive toward economic integration took its first significant step in 1952, only three years after the end of post-world war two reconstruction, when “the Six” (Germany, France, Italy, Belgium, Luxembourg, and the Netherlands) took a critical step in reunifying Europe by establishing the European Coal and Steel Community (ECSC). Five years later, in 1957, the Treaty of Rome was signed, creating the European Economic Community (EEC) which, among other things, marked the beginning of the push towards free movement of labour and capital. Indeed, it was in response to the removal of intra-EEC tariff barriers that several other European countries (Austria, Denmark, Norway, Portugal, Sweden, Switzerland, and the United Kingdom) formed the European Free Trade Association (EFTA) in 1960. In essence, the goal of the EFTA was to liberalize trade and counterbalance the EEC. In 1967, the ECSC and the EEC (as well as
the European Atomic Energy Community) merged to form the European Community (EC). Following the establishment of the EFTA and EC, tariffs on internal trade within each of these groups were almost entirely removed by the end of the 1960s.

In 1970, the Werner Report laid out, for the first time, the eventual steps to European monetary union. In 1972, “the snake” exchange rate system was introduced, wherein the Six agreed to limit the margin of currency fluctuations to a 4.5 per cent band around an agreed central parity. When the United Kingdom and Denmark left the EFTA and acceded to the EC along with Ireland in 1973, they also joined “the snake.” However, this first attempt at European exchange rate coordination fell victim to the effects of the oil-price crises in the late 1970s. By 1978, only five of nine member states remained on “the snake.” The mid-1970s had, nonetheless, brought progress on another front. A significant free trade agreement had been reached in 1974 between the EC and the EFTA. Indeed, by the end of the 1970s, virtually all tariff barriers had been removed on the trade of industrial products within Western Europe.

The experience of “the snake” paved the way for the establishment of the European Monetary System (EMS) in 1979. Within the EMS, the concept of the European Currency Unit (ECU), a virtual currency based on relative GNP and trade values for all EC countries, was introduced, along with the exchange rate mechanism (ERM). The ERM marked the second attempt at a coordinated EC exchange rate policy and initially included all EC countries except the United Kingdom. Participants in the ERM were originally permitted, like “the snake,” to move within a 4.5 per cent band around a central parity with the ECU, except for Italy, which adopted a 12 per cent band because of its higher inflation rate.

In 1981, Greece acceded to the EC, followed five years later by Spain and Portugal. In 1987, the original Treaty of Rome was modified by the Single European Act, which formalized, among other things, the plan to create a single European economic market in goods and services, labour, and capital. In addition, the Single European Act included a program for deeper integration within the European Community through the removal of non-tariff barriers, the establishment of free labour and production factor flows, and the harmonization of standards by the end of 1992. From this point on, the term European Union was commonly, although informally, used to refer to the EC. In the following years, the ERM expanded to include Spain, the United Kingdom, and Portugal in 1989, 1990, and 1992, respectively, although using the wider 12 per cent band of fluctuation (Italy had, meanwhile, adopted the standard 4.5 per cent band in 1990). Despite several revaluations within the ERM, the mechanism functioned relatively smoothly until 1992, when speculative currency attacks forced the United Kingdom and Italy to withdraw from the arrangement. The following year, a new 30 per cent band was adopted to provide added flexibility
and reduce the threat of speculative attacks. Italy subsequently rejoined the ERM in 1996, whereas the United Kingdom has since abstained.

The formal European Union (EU) as we know it today was born out of the Maastricht Treaty in 1993.\footnote{The original member states of the EU were Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.} Besides enacting a common foreign and security policy, and dealing with EU-level matters of justice, this treaty specified the three steps required for Economic and Monetary Union (EMU): by the end of 1993, capital flows were to be completely freed within the EU; by 1999, member states preparing to adopt the euro currency upon its launch had to satisfy a set of convergence criteria by which major economic policies were coordinated across nations; effective at the beginning of 1999, the European Central Bank would be established, along with the official euro currency for which member-country conversion rates were irrevocably set. As of 1999 the Economic and Monetary Union (EMU) was officially established (with the circulation of the common currency following in 2002).\footnote{The Economic and Monetary Union originally consisted of Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. Greece joined later in 2001.} The union, marking the final stage of economic integration according to some, now includes Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. Denmark, Sweden and the United Kingdom have abstained, to this point, from joining EMU. More recently, the process of European economic integration continued in May of 2004 when ten central and eastern European countries joined the European Union with plans to adopt the common currency in years to come.\footnote{Poland, Hungary, the Czech Republic, Estonia, Latvia, Lithuania, Slovakia, Slovenia, Cyprus, and Malta joined the EU on 1 May 2004.}

### 2.2 Canada-European Union trade relations

Canada and the European Union maintain a decades old political and economic relationship. Relations between the two are covered by the World Trade Organization agreements as well as a diversity of bilateral framework and sectoral agreements. More specifically, the economic partnership dates back to 1958, when Canada accredited its first Ambassador to the European Economic Community (EEC). In 1976, the EEC and Canada signed a historic Framework Agreement for Commercial and Economic Co-operation, the first international agreement between the EEC and an industrialized country. This framework agreement, which called on both parties to “develop and diversify their reciprocal commercial exchanges and to foster economic co-operation”, provided for regular dialogue on trade at several levels, and provided the legal basis for further collaboration between the two. Under this agreement; the Joint Cooperation
Committee (JCC) was established. This committee meets every year and has a number of sub-committees including the Trade and Investment Sub-Committee (TISC). Since 1976, as the EEC has evolved into the EU, Canada and the EU have concluded several agreements covering a wide range of economic activities ranging from fisheries and wines and spirits to veterinary issues and nuclear research.\(^{17}\)

By 1990, there was a desire to build on existing agreements and establish a political framework for Canada-Europe relations. The result was the Transatlantic Declaration on Canada-EU Relations, which set the institutional framework forming the basis for biannual (i.e., twice yearly) Summit meetings between the Prime Minister of Canada and his counterpart in the Presidency of the European Union and the President of the European Commission.\(^{18}\) The Declaration also established biannual Ministerial meetings.

In recognition of the broad nature of common interests, the Canada-EU Action Plan was signed in 1996 to extend cooperation across a wide range of subjects falling under four headings:

- economic and trade relations
- foreign policy and security issues
- transnational issues
- fostering links between the EU and Canada

Under the trade and economic relations umbrella, a new EU-Canada trade initiative (ECTI) was launched in 1998, on the eve of the introduction of the euro currency. The ECTI set out an agenda of priorities for developing bilateral economic relations into the new century. Current issues on the ECTI agenda include: mutual recognition and regulatory cooperation, services, government procurement, intellectual property, competition, business-to-business contacts, cultural cooperation, and electronic commerce. It also includes a commitment to regular and enhanced discussions on multilateral issues.

Also established under this heading was a vehicle for businesses involved in Canada-EU trade to make known their views to the trade Ministers on high-level policy issues which have an impact on Canada-EU trade and investment relations. As such, the Canada-Europe Round Table (CERT) was established in 1999.

\(^{17}\) Several sectoral agreements are in place including: the Agreement on Research in Peaceful Uses of Nuclear Energy (1959); the Agreement on Cooperation in Nuclear Research (1998); the Fisheries Agreement (1981); the Agreement on Fisheries Enforcement and Conservation (1995); the Agreement on Science and Technology Cooperation (1995, expanded in 1998); the Agreement on Education and Training (1996); the Customs Cooperation Agreement (1997); the Mutual Recognition Agreement (1998); the Veterinary Agreement (1998); the Competition Agreement (1999); and the Agreement on Trade in Wine and Spirit Drinks (2003).

\(^{18}\) The Presidency of the EU rotates every six months among the Member States.
Under the auspices of ECTI, both the EU and Canada conducted business surveys with a view to assessing the business case for a closer type of Canada-EU economic cooperation. Along with general market factors, the surveys identified regulatory barriers as the main source of difficulties to bilateral trade and investment. From the European perspective, health and safety standards, labelling, packaging, provincial liquor boards, geographical indicators, customs formalities (e.g., the requirement to use 10-digit HS codes), lack of diploma recognition, and certain restrictions on investment were identified. Many of the same types of difficulties were also identified from the Canadian perspective, in particular: sanitary and technical regulations, packaging, labelling, certification requirements, crop protection rules, and bureaucracy in establishing service companies in the EU.

From these surveys, it was concluded that a new impetus should be given to the bilateral relations through a major political initiative, although a classical free trade negotiation was not necessarily the most appropriate instrument for this purpose. Thus, a new Trade and Investment Enhancement Agreement (TIEA) between Canada and the EU was signed in March 2004. TIEA is intended to be a forward-looking, wide-ranging bilateral trade and investment enhancement agreement covering a new generation of issues and outstanding barriers. In particular, it will tackle the significant impact of regulatory barriers in bilateral trade and investment and pay due consideration to the increasingly prominent role of investment in the bilateral economic relationship.19

Although the 1976 framework agreement and subsequent instruments of commercial and economic cooperation have facilitated efforts by both sides to manage and resolve trade and investment disputes, Canada-EU trade and economic relations are so broad that disagreements are almost inevitable. In recent years, trade relations between the two partners have been tainted by long standing barrier issues for such products as chrysolite asbestos, automobiles, wine, lumber, seafood, beef reared on growth hormones, wheat, and transgenic products like canola. Furthermore, the Canadian government believes that the EU’s Common Agricultural Policy (CAP), in particular price support and production subsidies, continues to restrict the access of Canadian agricultural products to the EU while distorting the markets of third-party countries.

19. TIEA will address issues such as: mutual recognition of professional qualifications; e-commerce; financial services; government procurement; trade and investment facilitation; competition; sustainable development; intellectual property rights; and science and technology cooperation.
3. Stylized Facts

This section of the paper summarizes the stylized facts regarding trade between Canada and the European Union over the past several decades. The analysis first investigates aggregate trade flows between Canada and the EU, and their major trading partners, before digging deeper to discuss trade between Canada and the individual EU member states. Broad sectoral trade flow data are also examined to assess the Canada-EU trade relationship in more detail. The analysis then examines the evolution of investment between Canada and the European Union over the past half century.

3.1 Aggregate trade flows

Canada and the European Union maintain important and economically significant trade relations. Total merchandise trade (exports plus imports) between the European Union and Canada reached a record level of US$3.6 billion at the end of 2003, having grown almost 86 per cent since the establishment of the European Union in the fourth quarter of 1993. Over the same period, however, Canada’s trade deficit with the EU increased by almost 250 per cent to a level of US$1.1 billion, implying that Canada is increasingly importing more from the EU than it is exporting.20

Although the volume of trade between Canada and the EU continues to grow, it is rising at a slower rate than Canada’s trade with other regions of the world. Viewing these trade flows as a share of each area’s total trade provides some additional context.

3.1.1 The Canadian perspective

From the Canadian perspective, the EU was Canada’s second largest trading partner in 2003, after the United States, in terms of both imports and exports. More specifically, the EU accounts for 11.5 per cent of total Canadian imports (versus 59 per cent accounted for by the U.S.) and 5.3 per cent of total Canadian exports (versus 85 per cent for the U.S.). These shares, however, have been decreasing over time. As is visible in Figure 1, the EU’s share of Canadian imports averaged about 14.5 per cent in the 1960s. This share subsequently fell to about 10 per cent throughout much of the 1980s and 1990s before rising somewhat to its current level. At the same time, Japan accounted for a growing share of total Canadian imports until the early 1990s at which time that country entered a protracted economic slowdown. Meanwhile, economic reforms in China and its entry into the World Trade Organization have led it to account for a growing share of Canadian imports since the early 1980s, rising from about 0.2 per cent at that time to over 6 per cent at the

20. Canada has consistently maintained a merchandise trade deficit with the EU members since 1984.
end of 2003. In terms of individual countries, China is now Canada’s second largest import market after the U.S. Taking a look at the country-by-country breakdown of Canadian imports from the EU (Figures 2 and 3), it is clear that the composition of imports from the EU has remained largely the same since 1980. Of note, the share of imports from the United Kingdom has declined from about 30 per cent to about 22 per cent.

On the export side, the European Union’s share of Canada’s exports has declined steadily from about 25 per cent in the 1960s to about 5 per cent where it has been since the late 1990s. At the same time, the United States’ share has increased notably, from about 60 per cent in 1960 to over 85 per cent at the end of 2003 (Figure 4). As Figures 5 and 6 illustrate, the EU’s relative decline was driven primarily by a steep drop in the share of Canadian exports to the United Kingdom. Indeed, as a share of total Canadian exports to the EU, the United Kingdom has fallen from over 85 per cent in the 1950s to about 23 per cent by the mid-1990s.21 In volume terms, although Canadian exports to the EU have continued to rise since the 1950s, Figure 7 shows that this was not always true for the United Kingdom. In fact, the volume of Canadian exports to the UK declined 54 per cent between 1970 and 1985. In contrast, the volume of Canadian exports to the rest of the EU (excluding the UK) saw a steady upward trend. These stylized facts are in line with the UK’s increasing economic integration with other European countries over this period. As mentioned previously, the UK helped found the European Free Trade Association in 1960. Through the removal of tariffs between the UK and other EFTA members, Canada now faced increased competition in the British market.22 Thirteen years later, when the United Kingdom acceded to the European Community, Canada faced an even more dramatic shift in competitiveness. In 1960, before the UK’s accession, 97 per cent of Canadian exports to the UK entered duty-free. This compared to about 75 per cent of Canadian exports which entered the European Community without tariffs. Moreover, Canada maintained preferential tariff treatment with the UK on all dutiable goods and 42 per cent of non-dutiable goods, in comparison with goods from the EC. For all other goods, Canada stood on equal footing with the EC countries in terms of UK tariff rates. After the UK’s accession to the EC, Britain shifted its tariffs to match the common European Community external tariff rates. This process occurred gradually in five equal steps from 1973 to 1977. As a result, Canada (and other Commonwealth countries) lost all of its former preferential tariff treatment with the UK and in many cases actually faced reverse preferences compared to other EC countries (Hart 2002, Wilgress 1962).

21. Based on available exports data. Time series for exports to some members of the EU are not available before 1986. However, data for the six largest EU countries in terms of Canadian export shares to the EU are available from 1949.
22. For example, Hart (2002) notes that EFTA tariff cuts led Norway to threaten Canada as the top supplier of aluminum to Britain.
Standing in stark contrast with the significant decline in the UK’s share of Canadian exports, Figure 4 illustrates that the rest of the European Union, excluding the United Kingdom, experienced a very modest decline over the period of 1950 to 2003.

Taken together, the steady decline in the EU’s share of Canadian exports combined with the relative stability of Canada’s share of imports from the EU has left Canada with the aforementioned increasing bilateral trade deficit with the European Union over the last forty years.

3.1.2 The European Union perspective

From the EU’s perspective, Canada currently ranks eleventh in terms of EU imports (0.7 per cent) and fourteenth in terms of exports (0.8 per cent). As illustrated in Figures 8 and 9, Canada’s share of EU exports fell from about 2 per cent at the beginning of the 1960s to about 0.8 per cent in the early 1980s where it has largely remained since that time. Concurrently, the United States oscillated around 8 per cent of total EU exports, while “Other Asia” and Japan trended upward until the mid-1990s. China’s share of EU exports has been rising since the mid-1980s and appears to be accelerating. At the end of 2003 China’s share was over 1.6 per cent of total EU exports compared to only about 0.5 per cent at the beginning of the 1990s.

In terms of EU imports, Canada’s share declined steadily from about 2.6 per cent in the early 1960s to about 0.7 per cent where it has been since the second half of 1992. On the other hand, the U.S. share of total EU imports declined in the 1960s and again since mid-2001, while Japan’s share increased rapidly until the mid-1980s (it has been in decline since the early 1990s). At the same time, the importance of China and “Other Asia” has been trending upward strongly since the mid-1980s. More recently, China’s share seems to be gaining speed, posting a level of 4.2 per cent, roughly double its value only five years previously. Interestingly, the residual line labelled “Others” in Figures 10 and 11 makes up roughly twice as much of the EU’s total imports as does the United States. Since the mid-1990s growth in this share has been driven by increased trade with the ten central and eastern European countries that acceded to the European Union in 2004.

In general, the EU import story mirrors that described above for Canadian exports. The decline in Canada’s share of EU imports can be attributed almost completely to a dramatic fall in the relative importance of the United Kingdom’s imports from Canada resulting primarily from the UK’s accession to the European Free Trade Association (1960) and, later, the European Community.

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23. Fuelled by free trade agreements signed in the early to mid-1990s, the ten acceding countries accounted for 12.7 per cent of total extra-euro zone imports in 2002, up from 4.3 per cent in 1990 (See Anderton, di Mauro and Moneta 2004, Table 5, p. 21).
(1973). However, Figure 12 provides some additional details. Interestingly, a similar downward trend in the share of UK imports also took place in other Commonwealth countries (e.g., Australia and New Zealand) who, like Canada, also lost their preferential trade treatment with the United Kingdom over the 1960s and 1970s.

### 3.2 Sectoral trade flows

Broad sectoral data provide additional insight into the stylized facts regarding Canada-EU trade. As discussed in the previous section, the EU’s share of total Canadian imports has, on the whole, remained fairly stable since the 1960s. The sectoral composition of these imports has remained much the same as it was 20 years ago (Figure 13). Figure 14, which disaggregates the commodities sector into energy and non-energy components, shows that the composition of commodity imports has also remained roughly the same since the mid-1980s. Likewise, Figure 15 shows little change over this period in the relative importance of the various sub-sectors that make up the total machinery and equipment sector. In addition, when the major sectors of Canadian imports from the EU are viewed in relation to total Canadian imports from all countries (Figure 16) we see that the modest rise in the EU’s share of Canadian imports since the 1990s (see Section 3.1) was driven primarily by machinery and equipment.

Turning now to Canadian exports to the European Union, Figure 17 shows that commodities have declined significantly since the 1960s as a share of total Canadian exports to the EU. At the same time, the importance of the machinery and equipment sector has risen while other types of exports have remained fairly stable. Looking at a more disaggregated level, Figure 18 illustrates that the decline in the importance of the commodity sector was entirely due to non-energy commodities. Similarly, Figure 19 shows that the rising importance of the machinery and equipment sector was driven primarily by aircraft products and other residual types of machinery and equipment (the increase in the latter is spread fairly evenly between the miscellaneous machinery and miscellaneous equipment categories). As noted previously, Canada-UK trade plays a pivotal role in the trend of Canadian exports to the EU over the past 50 years. Indeed, the noted decline in Canadian non-energy commodities to the EU was driven primarily by a fall in non-energy commodities to the United Kingdom (Figures 20 and 21). As noted in Hart (2002), many Canadian non-energy commodity exports to the UK, such as wheat, barley, aluminum, lead, zinc and chemicals, faced reverse tariff preferences compared to European Community member states following the UK’s accession to the EC in 1973. Such goods had previously held Commonwealth trade preference over other countries.24
The same general story holds true once these numbers are made consistent with Figure 4 (i.e., when viewed as a share of Canada’s total exports). In brief, Figures 20 and 21 illustrate that the significant decline in the relative importance of the EU as an export market for Canada was overwhelmingly due to the decreasing relative importance of commodity exports, most notably to the United Kingdom (almost entirely in the form of non-energy commodities). Indeed, Figure 22 shows that this trend is evident, not only in exports to the European Union, but to all countries in general.  

In summary, the stylized facts show that the relative importance of Canada’s trade with the European Union has, in general, fallen over past decades. While the Canadian share of imports from the EU have remained fairly stable, exports to the EU have declined primarily due to a marked fall in non-energy commodity exports to the United Kingdom. This shift likely resulted primarily from the UK’s accession to the European Free Trade Association (1960) and, later, the European Community (1973), within a context of generally weakening historical ties between Canada and the UK. A similar downward trend in the share of UK imports also took place in Australia and New Zealand who, like Canada, lost their preferential trade treatment with the United Kingdom over the 1960s and early 1970s.

### 3.3 Investment between Canada and the European Union

For much of its history, Canada has been a net importer of direct investment capital and this situation has been equally true of the Canada-EU investment relation. Up until 1996, Canadian holdings of direct investment in the EU were always lower than EU holdings in Canada. This situation changed with strong additions to the stock of Canadian direct investment abroad (CDIA) in the EU in both 1997 and 1998, and carried through until 1999. The year 2000 was characterized by unprecedented levels of merger and acquisition activity. Canadian direct investment holdings in the EU shot up by 39.7 per cent while EU holdings in Canada rocketed up by 85.9 per cent, led by France with a 458.5 per cent increase in its FDI holdings in Canada. Notable Canadian firms that were acquired by French investors included Seagrams and Newbridge. The net result was that Canada again found itself in the position of being a net importer of EU direct investment capital at

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24. Part of the UK’s adoption of common EC external tariffs included the Common Agricultural Policy (CAP), which led the UK to become more self-sufficient in agricultural goods, while substituting some imports away from countries like Canada and toward other EC member states (Nadeau 1985).

25. Comparative advantage continues to drive a significant portion of Canada’s trade especially in commodity exports. However, the trend towards increasing two-way trade in industrial goods has risen significantly since the mid-1980s. In the machinery and equipment category, for example, the rapidly growing importance of office machines and telecommunications equipment in both exports and imports has fuelled two-way trade. For a review of trends in Canada’s Merchandise trade, see Dion (2000).
the close of the year 2000. It was only in 2003 that Canada again reversed the situation and became a net exporter of capital to the EU.

In 2003, Canadians invested just over $14.1 billion in the EU, raising the stock of total Canadian direct investment in the EU to $99.1 billion. At this level, the EU accounted for 24.8 per cent of the stock of total Canadian direct investment abroad (CDIA), second only to the 41.3 per cent invested in the United States. Indeed, Canadian investors have increased their holdings in the EU almost 361 times since the Treaty of Rome came into effect in 1957.26 By way of comparison, Canadian investment to all countries has grown nearly 182 times since 1957 and CDIA to the US has grown 107 times over the same period.

On the inward side, the stock of foreign direct investment (FDI) in Canada from the EU stood at $96.7 billion in 2003, some 63.2 times larger than the $1.5 billion level estimated for 1957. Again, this pace has been faster than either that of total FDI in Canada (33.9 times larger in 2003 than in 1957) or that for US FDI in Canada (25.8 times). Last year, the net flow of direct investment from the EU was $1.5 billion.

More globally, Canada’s share of outward direct investment in the EU as a share of total CDIA has risen over the years (Figure 23). Until 1956, the EU accounted for less than ten per cent of the total. In 1957, the EU’s share registered 10.2 per cent and climbed to over 19 per cent by 1966. Thereafter, it slowly drifted down, falling to 11.4 per cent in 1984. Three years later, Canadian investment activity into the EU began to accelerate and by 1990 the region represented just over one-fifth of total CDIA where it remained for the next dozen years, before jumping to 24.8 per cent of the total in 2003.

As shown in Figure 24, on the inward side, the EU’s share of total FDI in Canada sat between 15 and 20 per cent until 1986, when it reached 20.3 per cent. It had risen to over 24 per cent by 1990 before sliding back to 20.4 per cent by 1999. The strong European investments made in the year 2000 then pushed the EU’s share to just over 30 per cent. The EU’s share subsequently receded to about 27 per cent in 2003.

As mentioned earlier in Section 2.2, Canadian businesses have experienced regulatory barriers in the EU markets. One possible way of circumventing these barriers is to establish a domestic presence within the EU market (i.e., CDIA) and sell to that market through a local subsidiary. Unfortunately, there is not much available information on the activities of Canadian foreign

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26. Outward and inward direct investment stock data with the EU have been constructed back to 1957 using the available country time series for the EU15 member countries.
affiliates abroad. Only recently has Statistics Canada begun to produce such information, and, thus, the data only exist for a limited number of years.

Table 1: Canada-EU commercial relations: Exports Versus Foreign-Affiliated Sales

<table>
<thead>
<tr>
<th>($Canadian millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-run factors</td>
</tr>
<tr>
<td>(1)</td>
</tr>
<tr>
<td>1999</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
</tr>
</tbody>
</table>

a. Source: Statistics Canada.

Nonetheless, Table 1 shows that Canadian companies have, in recent years, provided roughly twice as much in goods and services directly via their foreign affiliates in the EU than they have through traditional export channels. Moreover, it seems that the direct sales route is becoming more important, rising to two and a quarter times exports in 2001 from twice the amount of exports only a year earlier.

In terms of regional distribution, investment flows with the United Kingdom are of particular importance. When the UK joined the European Community in 1973, it accounted for 56 per cent of the stock of EU FDI in Canada. Some sixteen years earlier, in 1957, it represented over three quarters of EU investment in Canada; over the next sixteen years, to the end of the 1980s, the UK more-or-less maintained its share in the 55 per cent range; since then, its share has been edging downwards and now represents 28 per cent of EU holdings in Canada. Likewise, about 56 per cent of all Canadian direct investment in the EU was placed in the UK in 1973, down from 84 per cent in 1957, but more than the 41 per cent observed in 2003. These figures represent relative share declines of almost two thirds on the inward investment side and one half for Canadian outward investment between 1957 and 2003. Thus, the overarching story of Canada-EU direct investment relations has been one of the relative diminishing role of the UK or, alternatively, of the relative increased role of other member countries, notably France, Germany, and the Netherlands.

On the inward investment side, these three other countries, in addition to the UK, make up the bulk of EU holdings in Canada. Over 1957-2003, these three countries, along with the UK, accounted for an average of 87.9 per cent of total EU direct investment in Canada, ranging from a low of 81.8 per cent in 1999 to a high of 96.5 per cent in 1989. In 2003, these four countries
accounted for 84.1 per cent of all EU FDI in Canada. They are also the only countries to register a greater-than-10 per cent share of EU investment in Canada in any of the years between 1957 and 2003.

France first registered a greater-than-10 per cent share in 1968 and managed to exceed that threshold over the next dozen years before falling under the mark in 1981. In 1989, France again exceeded the 10 per cent threshold and has continued to do so in every year since. As mentioned earlier, France engaged in some rather sizeable merger and acquisition activity in the year 2000 (Figure 25). As a result of that activity, France’s share of EU holdings jumped to 38.6 per cent in that year from 12.8 per cent the year before. Some of the acquired assets have been sold off in the ensuing years and, as of 2003, France accounted for almost a third (32.7 per cent) of all EU FDI in Canada, or $31.6 billion.

The Netherlands first breeched the 10 per cent threshold over 1965-1966, then in 1969-1970, and again over 1975-1977, and has remained over that level since 1980. In 2003, the Netherlands accounted for 15.8 per cent of total EU FDI in Canada, equivalent to FDI holdings of $15.3 billion.

Germany surpassed the 10 per cent threshold in 1975 and continued to do so until the year 2000 when the sizeable additions to total EU holdings (led by the French merger and acquisition activity) caused the German share to fall below the 10 per cent level. At 7.6 per cent of the total EU investment in Canada in 2003, or $7.3 billion, Germany is the smallest of the top four EU investors in Canada.

Turning to the outward investment side, Canadian direct investment into the EU has also been highly concentrated. In terms of preferred investment locations, Canadian investors have tended to invest in those European countries which have most invested in Canada. That is, much of the Canadian FDI in the EU is situated in Britain, France, Germany, and the Netherlands. In addition, Ireland is also a major destination of CDIA in the EU (Figure 26).

At 40.1 per cent of the total, or $40.7 billion, the UK remains the largest recipient of CDIA in the EU, followed by Ireland (18.4 per cent, or $18.2 billion), France (11.7 per cent, or $11.6 billion), the Netherlands (10.8 per cent, or $10.7 billion), and Germany (7.9 per cent, or $7.8 billion). Together, these five countries accounted, on average, for about 88.8 per cent of total CDIA in the EU over 1957-2003. In 2003, these countries contributed 89.8 per cent of the total, and their collective shares have ranged from 86.1 per cent (in 1976) to 96.4 per cent (in 1957).

Excluding investment in the UK, Canadian investors have not often placed more than 10 per cent of their holdings of CDIA in the EU in other European countries. CDIA in France exceeded this
10 per cent threshold between 1974 and 1976 and again over 1988-1989. With the acquisition of the French firm Pechiney by Alcan in December of 2003, the stock of Canadian investment in France grew 156.4 per cent last year, to $11.6 billion, or 11.7 per cent of total CDIA in the EU.

Ireland has captured more than 10 per cent of CDIA in the EU since 1993 (except for the year 2000) and the Netherlands since 1998. Germany, lone amongst the top 5 destinations for Canadian FDI in the EU, is the only nation in this group not to have surpassed the 10 per cent threshold at least once.

In summary, although Canada-UK investment levels have risen in absolute terms, they have not kept pace with those between Canada and the other EU member nations over 1957-2003; this explains the broad movement in shares over this period. Thus, there appears to have been a limited shift in the focus of Canada-EU investment relations away from the UK and, particularly, towards France, the Netherlands, Germany and, perhaps, Ireland.

4. Canadian Export Share Model

Assessing the impact of increased European integration on trade with Canada is an empirically difficult exercise given the complexity of modeling economic integration. We attempt to address the issue with a simple export share model using a panel dataset based on country-pair observations between Canada and each of the European Union countries. We would like to stress that the scope of our empirical analysis is limited to explaining the stylized facts regarding Canadian exports to EU member countries as presented in the previous section. Thus, our analysis does not attempt to account for movement in the EU’s share of Canadian imports given that this variable is driven by Canadian domestic factors that are unrelated to the issue of increased European economic integration.

As discussed previously, overall trade between Canada and the EU has fallen as a share of each area’s total trade. What has caused the decline in these shares? Can they be accounted for solely by the fundamental determinants of trade performance or does Europe’s increasing economic integration also play a role? In this section, we investigate the factors contributing to the overall decline in Canadian exports to the EU as a share of total Canadian exports. To this end, a theoretically-based reduced-form export share model is developed combining both supply and demand determinants of export performance, such as relative price competitiveness and foreign

27. All data are taken from Statistics Canada, OECD (2004), BIS, and IMF databases. All foreign variables were converted to Canadian dollars. Constant dollar and price index series were rebased to 2000 as the reference year, in cases where base years were different. Mnemonics are described in Appendix A.
28. Based on data availability, the term “European Union” refers throughout our empirical analysis to the fourteen members of the EU (before the May 2004 expansion) excluding Luxembourg, unless otherwise noted.
income. By specifying our model in relative terms (i.e., shares), we implicitly account for the general increase in world trade openness. Linear time trend and dummy variables are then added to the basic model to capture excess trade resulting from other factors, such as increased European economic integration.

In developing our model, we proceed in two steps. We first specify Canadian exports to the individual EU member countries, as well as total Canadian exports to all countries using the aforementioned fundamental determinants. Thus, defining Canada as country $i$, Equations (1) and (2) specify Canadian real exports to country $j$ and total Canadian real exports, respectively. In step two, the export share equation is then obtained by dividing Equation (1) by Equation (2), the results of which are given as Equation (3).30

$$\frac{X_{ijt}}{PX_{it}} = \alpha_{10} + \alpha_{11} \left( \frac{P_{it}}{P_{jt}} \right) * \text{ner}_{jit} + \alpha_{12} Y_{jt} * \text{ner}_{jit} + \varepsilon_{ijt},$$  \hspace{1cm} (1)
$$\frac{X_{it}}{PX_{it}} = \alpha_{20} + \alpha_{21} \left( \frac{P_{it}}{P_{wt}} \right) * \text{neer}_{it} + \alpha_{22} Y_{wt} / \text{neer}_{it} + \varepsilon_{it},$$ \hspace{1cm} (2)
$$\frac{X_{ijt}}{X_{it}} = \beta_{0} + \beta_{1} \left( \frac{P_{wt}}{P_{jt}} \right) * \frac{\text{ner}_{jit}}{\text{neer}_{it}} + \beta_{2} \left( \frac{Y_{jt}}{Y_{wt}} \right) * \frac{\text{ner}_{ijit}}{\text{neer}_{it}} + \varepsilon_{xijt} \hspace{1cm} (3)$$

where the variables are defined as:

- $X_{ijt}$: Canadian exports to country $j$,
- $X_{it}$: total Canadian exports,
- $PX_{it}$: the Canadian export price deflator at time $t$,
- $X_{ijt}/PX_{it}$: Canadian real exports to country $j$,
- $X_{it}/PX_{it}$: total Canadian real exports,
- $Y_{(i \text{ or } j \text{ or } w) t}$: real GDP in country $i$ or $j$ or in the world at time $t$,
- $P_{it}$: the GDP price deflator in country $i$ at time $t$,
- $P_{jt}$: the GDP price deflator in country $j$ at time $t$,
- $P_{wt}$: the world price deflator at time $t$,
- \text{ner}_{jit}: the nominal exchange rate between country $j$ and $i$ (where an increase corresponds to an appreciation of currency $i$ versus currency $j$), and
- \text{neer}_{it}: the nominal effective Canadian exchange rate (an increase is an appreciation of the Canadian dollar).

Looking further at Equation (1), $X_{ijt}/PX_{it}$ denotes real exports from Canada to country $j$ at time $t$. The export performance of Canada with respect to country $j$ depends primarily on its price competitiveness relative to country $j$ as measured by its real bilateral exchange rate, $\left( \frac{P_{it}}{P_{jt}} \right) * \text{ner}_{jit}$, and also on the Canadian dollar level of real income in country $j$, denoted $Y_{jt} * \text{ner}_{ijit}$.

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29. Ideally, we would also like to explain the level of Canadian real exports to EU countries as well as the level of Canadian real exports to the world. However, we did not find evidence of cointegration in level terms, using both the panel Johansen cointegration test and within a panel error-correction model. Thus, we could not make valid empirical inferences.

30. Estimating the export share model as specified in Equation 3, implicitly imposes the following restrictions: $\beta_{0} = \alpha_{10} / \alpha_{20}$, $\beta_{1} = \alpha_{11} / \alpha_{21}$, and $\beta_{2} = \alpha_{12} / \alpha_{22}$. 

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In Equation (2), $X_it/XP_it$ denotes total Canadian real exports to the world at time $t$. In this traditional export equation, Canada’s export performance is expected to depend primarily on its relative price competitiveness versus all trading partners, in addition to the level of world demand. Relative price competitiveness is captured by the price of Canada’s goods, $P_it$, relative to the price of world goods, $P_wt$, expressed in Canadian dollars using the nominal effective exchange rate for Canada, denoted $(P_it/P_wt)^*neer_it$. The level of world demand (or world real GDP) is expressed in Canadian dollars and is denoted, $Y_wt/neer_it$. The latter specifies shifts in world demand for Canada’s export goods.

Finally, expressing Canadian real exports to country $j$ as a share of total Canadian real exports yields the export share function as represented by Equation (3). This export share is expected to depend on the ratio of relative price competitiveness, denoted $(P_wt/Pjt)^*(nerjit/neer_it)$, in addition to the relative income of country $j$ as a share of world income, $(Yjit*nerit)/(Y_wt/neer_it)$.\(^{31}\)

Empirical estimation of the export share equation (Equation (3)) uses a panel dataset covering 14 country-pairs (i.e., exports from Canada to each of the EU15 countries, excluding Luxembourg due to data availability).\(^{32}\) The data are of a quarterly frequency and include the period 1986 to 2003.\(^{33}\) The estimated long-run parameters are obtained using the panel Dynamic Ordinary Least Squares (DOLS) leads-and-lags procedure which corrects for potential endogeneity bias (Kao and Chiang 2000, Mark and Sul 2002).\(^{34}\) These estimates are derived with four leads and four lags on the first difference of the two fundamental determinants. Note that our results are robust when the lag process is reduced from fourth order to second order. Table 2 presents the panel estimation results for Canadian exports to the EU as a share of total Canadian exports.

Overall, our basecase results (Equation 3 reported in column 1) for the Canadian export share equation suggest that relative income accounts for about 57 per cent of the long-run movement in the Canadian export volume to the EU as a share of total Canadian exports. Furthermore, the estimated parameter associated with EU income relative to world income takes the expected positive sign and is statistically significant. On the other hand, the estimated parameter on the relative exchange rate is not statistically significant.

\(^{31}\) Admittedly, the foreign price deflator of country $j$ at time $t$ should be measured by the domestic price deflator of country $j$ at time $t$ (price of domestic substitutes). For reasons of data availability, however, we use the GDP price deflator for each country in the calculation of the relative bilateral real exchange rate.

\(^{32}\) All panel estimations and statistical tests were performed using the Stata and Eviews packages.

\(^{33}\) Although it is theoretically inappropriate for a bounded variable such as a share to be truly nonstationary, it may nevertheless be so, in a statistical sense, over a given sample period. This is the case for several of our share variables over our sample period. Indeed, we find evidence of a unit root in the level of all relevant variables, based on the Hadri panel stationarity test.

\(^{34}\) We test for cointegration using the panel Johansen cointegration test and through a panel error-correction model using the Granger Representation Theorem (1987). In both cases, we reject the null of no cointegration, thus allowing valid inferences.
In column 2 of Table 2, after controlling for relative price competitiveness and relative income, the basecase equation is augmented with a linear time trend over the entire estimation sample period to help account for the trend decline in the EU’s share of Canadian exports not accounted for by movements in its long-run determinants (see column (2)). Because our model is specified in terms of shares, the general increase in world trade openness is implicitly accounted for. After controlling for fundamental determinants, our trend variable, therefore, captures excess trade resulting from other factors, such as increased European economic integration. Although of the expected negative sign, the estimated parameter associated with the EU trend is not statistically significant.
Reflecting the extraordinarily strong historical trade relationship between Canada and the United Kingdom, we are interested in determining whether the inclusion of a UK dummy variable would significantly change our results. We therefore re-estimate our panel regressions over the same sample period including a dummy variable that takes a value of one only for Canada-UK country pair observations and zero otherwise. The results, reported in column 3 of Table 2, show that including a dummy variable for the UK’s share of Canadian exports does indeed significantly increase the explanatory power of the estimated equation (from 0.57 to 0.78). As expected, the estimated parameter associated with the UK dummy variable takes a positive value reflecting larger Canadian exports to the UK, on average over our sample, as a share of total Canadian exports. At the same time, the estimated parameter on relative income falls modestly, while the estimated parameter on the relative exchange rate remains statistically insignificant.35

As discussed in section 3, the relative importance of Canada’s exports to the European Union has primarily been driven by a marked fall in non-energy commodity exports to the United Kingdom (Figures 4 and 6). Given this dramatic fall in exports to the United Kingdom as a share of total Canadian exports, we re-estimate our panel regressions over the same sample period including a UK-specific linear time trend variable along with a separate trend for exports to all the other EU countries (i.e., excluding the UK). The results, reported in column 4 of Table 2, show that including a distinct UK linear time trend variable and another for the other EU countries (denoted EU ex-UK) increases the explanatory power of the estimated equation (from 0.78 to 0.81). More importantly, the estimated parameter on the UK trend is ten times that of the EU ex-UK trend variable consistent with the stylized facts reported earlier.

As mentioned previously, the dramatic fall in the United Kingdom’s share of Canadian exports began in the early 1950s (based on available data). The estimation results reported above, in Table 2, cover the period 1986 to 2003. By removing three country pairs from the sample (i.e., Canadian exports to Greece, Spain and Portugal), we are able to extend the sample period to cover 1972 to 2003. This longer sample helps to more fully incorporate the large and gradual fall in exports to the United Kingdom as a share of total Canadian exports. The results of this exercise, reported in Table 3, reveal that extending our sample period back to 1972 effectively doubles the estimated parameter on both the UK dummy variable and the UK-specific linear time trend while the estimated parameters on the other explanatory variables remain broadly unchanged. The only exception is the estimated parameter on the relative exchange rate which takes the expected

35. As an aside, when dummy variables for other major country-pairs (e.g., Canadian exports to Germany, France and the Netherlands) are included in the regression, the estimated parameter for the Canada-UK dummy variable dominates in size.
negative sign and is statistically significant when the UK dummy variable and the two trend variables are also included.

In summary, while fundamental trade determinants (i.e., relative price competitiveness and relative income growth over the period) explain, in part, the EU’s declining share of Canadian exports over the period, the characteristics of Canada-United Kingdom trade, in particular, also played an important role. A dummy variable for the Canada-United Kingdom country pair takes a relatively large positive parameter, indicative of the UK’s relatively strong trade ties with Canada.

### Table 3: Canadian Export Share Equation (1972–2003)\(^a\)

| Panel estimations, Canada and 11 EU countries, Sample: 1972:01–2003:04, N=1408 | Dependent variable: \(X_{ijt}/X_{it}\) |
|---|---|---|---|---|---|
| Long-run factors | (1) | (2) | (3) | (4) | (5) |
| Constant | -0.013 | -0.011 | 0.009 | 0.014 | 0.049 |
| Relative bilateral real exchange rate\(^b\): \((P_{wt}/P_{jt})*(ner_{ijt}/neer_{it})\) | 0.016 | 0.015 | -0.002 | -0.008 | -0.049 |
| Relative income of country j as a ratio to world income: \((Y_{jt} \times ner_{ijt})/(Y_{wt}/neer_{it})\) | 0.165 | 0.164 | 0.119 | 0.113 | 0.303 |
| EU Trend | -0.00001 | -0.00005 | | | |
| UK dummy | 0.019 | 0.050 | 0.142 |
| UK Trend | -0.0004 | -0.0006 |
| EU Trend (ex-UK) | -0.00004 | 0.00007 |
| RBAR\(^2\) | 0.4473 | 0.4483 | 0.7027 | 0.8421 | 0.8209 |

| | Excluding the U.S. |
|---|---|---|
| | (1.09) | (0.70) | (1.19) | (2.29)* | (2.03)* |
| | (1.29) | (1.03) | (0.30) | (2.16)* | (2.33)* |
| | (3.19)** | (3.08)** | (3.84)** | (4.40)** | (4.37)** |
| | (0.42) | | | (2.49)* |
| | (8.35)** | (22.22)** | (12.72)** |
| | | | | (16.34)** | (9.05)** |
| | | | | (2.41)* | (2.84)* |

\(\text{a.}\) The panel DOLS estimation procedure uses four leads and four lags. The estimated parameters of the first-difference terms are constrained to be the same across countries (i.e., homogeneous dynamics). White heteroskedasticity-consistent errors are used in the calculation of the t-statistics (in parentheses). *(**) denotes that the parameter is statistically different from zero at a 10 per cent (5 per cent) level. Critical values are from Kao and Chiang (2000).

\(\text{b.}\) + (-) appreciation (depreciation) of the Canadian dollar.
In addition, a linear time trend for the same country pair takes a negative and highly statistically significant estimated parameter, reflecting the dramatic decline in the UK’s share of Canadian exports. At the same time, a single trend variable included for all other EU countries (excluding the UK) takes a smaller, but still statistically significant, negative parameter. More importantly, the estimated parameter on the UK trend is roughly ten times that of the EU ex-UK trend variable. This is consistent with the fact that Canada’s exports to the EU, excluding the United Kingdom, only trended down very modestly over the period.

These empirical results are further substantiated by narrowing our sample down to six countries (Belgium, France, Germany, Italy, the Netherlands, and the United Kingdom) for which data are available from 1960 to 2003. This sample period allows us to fully cover the UK’s membership in the EFTA and the European Community up until 2003. The results of this exercise, which are available upon request, effectively double the estimated parameter on both the UK dummy variable and the UK-specific linear time trend while the estimated parameter associated with the EU ex-UK trend variable remains unchanged, when compared to the results reported in column 4 of Table 3. At the same time, the estimated parameters on the other explanatory variables are reduced roughly by half. Hence, these results provide additional evidence that the decline in the EU’s share of Canadian exports was largely driven by the United Kingdom’s increased economic integration with Western Europe during the 1960’s and 1970s.

In order to capture the effects resulting from changes in the relative tariff rate on the EU’s share of Canadian exports, we included data on relative tariff rates charged by the EU and the United States on imports from Canada. Taking the ratio of the EU tariff rate to that of the U.S., we use the U.S. rate as a proxy for the average world tariff rate (recall that the U.S. comprises 80-85 per cent of Canada’s exports over this period). This tariff ratio was added to the specification in column 4 of Table 3. However, our results show that the estimated parameter on the tariff ratio, although of the expected negative sign, was not statistically significant. Nonetheless, this result does not imply that tariff changes have had no impact on Canada-EU trade patterns. Our tariff data only begin in 1988 and, thus, may not adequately capture the steep decline in the UK’s share of Canadian exports since the early 1970s. At the same time, Clausing (2001) argues that the use of highly aggregated data to estimate the effects of integration does not allow one to exploit the variation in tariff rates that occur at the commodity level. Thus, in our empirical work, our dummy and linear time trend variables likely capture the effect from changes in tariff and non-tariff barriers.

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36. As an alternative, the ratio of the UK tariff rate to the U.S. tariff rate may better reflect the shift in tariff rates that most affected Canada.
Returning to our 1972 to 2003 sample, Figure 27 illustrates the relationship between the EU’s share of Canadian exports and the two fundamental determinants used in our export share model, namely the EU’s share of world real income and the real bilateral exchange rate as a share of Canada’s real effective exchange rate. Alone, these two factors explain about 45 per cent of the variance in the EU’s share of Canadian exports (see column 1 of Table 3). The graphic representation in Figure 27 reveals the expected co-movement between the two fundamental determinants and the EU’s share of Canadian exports. This co-movement appears less certain after about 1990. Overall, part of the general trend decline in the EU’s share of Canadian exports appears to be consistent with a gradual trend decline in the EU’s income share, which falls by about half over the period shown in Figure 27. In addition, periods of notable strength in the EU’s income share (e.g., late 1970s and late 1980s) correspond to intervals of growing relative Canadian exports to the EU. Likewise, when the EU’s share of world income falls significantly (e.g., early 1980s), Canadian exports to the EU generally decline as a share of Canada’s total exports.

At the same time, a clear negative relationship is visible between the relative exchange rate (where a higher value corresponds to a relative appreciation of the Canadian dollar) and the EU’s share of Canadian exports. When the Canadian dollar appreciates strongly versus the EU currency (relative to the Canadian effective exchange rate), exports to the EU fall as a share of total Canadian exports (e.g., early 1980s). On the other hand, when the Canadian dollar depreciates versus the EU currencies in relative terms, the EU’s share of Canadian exports grows (e.g., around 1980, mid to late 1980s).

Despite these facts, it also appears that a portion of the general downward trend in the EU’s share of Canadian exports over the 1972 to 2003 period cannot be accounted for by these two fundamental factors. The stylized facts and empirical results presented above suggest that much of this downward trend is attributable to the relative decline in Canada’s exports to the United Kingdom. Indeed, when the UK is excluded, Canadian exports to the rest of the EU, as a share of total Canadian exports, appear to follow the fundamental determinants more closely (Figure 27). Accordingly, the UK dummy variable and UK trend included in our empirical specifications explain roughly half of the adjusted $R^2$ (0.8402) estimated by our export share model over the 1972 to 2003 period. When Britain co-founded the European Free Trade Association in 1960 and then acceded to the European Community in 1973, it removed trade barriers between itself and the rest of Western Europe. This shift in trade policy occurred within a context of generally weakening historical ties between Canada and Britain. Indeed, like Canada, Australia and New Zealand lost their preferential trade treatment with the United Kingdom over the 1960s and early 1970s. In this sense, the story may partially be one of trade diversion, but not in a classic sense in
which increased economic integration would have diverted Canadian real exports away from all European Union countries and not just the United Kingdom (recall Figure 7).

At the same time, it is important to keep in mind that Canada was making strides to strengthen its trade ties with the United States over the same period by signing the bilateral Auto Pact in 1965. More recently, North American economic integration increased significantly with the advent of the Canada-U.S. Free Trade Agreement in 1989 and the subsequent signing of the North American Free Trade Agreement (NAFTA) in 1994. Indeed, as reported in the stylized facts section, the U.S. share of Canadian exports has substantially increased over the past fifty years. This increase in the U.S. share may have contributed to the decline in the EU’s share of Canadian exports over the same period.

To empirically analyze this issue, we re-estimate our panel regression of column 4 in Table 3 over the 1972 to 2003 sample period, but we exclude Canadian exports to the United States in our calculation of total Canadian exports. The results, reported in column 5, show that excluding Canadian exports to the U.S. increases the estimated parameters on all the variables including a significant increase in the UK dummy (three times larger). More importantly, the estimated parameter on the EU ex-UK trend variable now takes on a significant small positive value consistent with our main conclusion that excluding the United Kingdom, the EU’s share of Canadian exports has remained relatively unchanged over the past fifty years.

5. Conclusions

This paper has examined the effects of increasing European economic integration on the European Union’s trade with Canada over the past fifty years.

In broad terms, the stylized facts suggest that, while Canada’s trade with the EU continues to rise in terms of levels (export and import volumes), the EU’s share of total Canadian trade has been declining since the 1950s. More specifically, while the EU’s share of Canadian imports has remained roughly level over this period, the EU’s share of Canadian exports has fallen significantly. This decline can be attributed almost completely to a dramatic fall in the relative importance of Canadian non-energy commodity exports to the United Kingdom. This shift in UK imports was likely driven primarily by Britain’s co-founding of the European Free Trade Association in 1960 as well as that country’s accession to the European Community (EC) in 1973 which left Canada (and other Commonwealth countries, such as Australia and New Zealand), without its pre-existing preferential trade treatment. At the same time, increased North American
economic integration has further boosted the United States’ dominance as Canada’s primary export market.

In terms of investment, the EU has been relatively stable over past decades both as a share of total Canadian investment abroad and as a share of total foreign investment in Canada, although the latter has declined modestly. At the regional level, the investment story is similar to that discussed above for trade flows. Namely, the UK’s share of total Canadian direct investment in the EU has fallen dramatically, as has the UK’s share of total EU investment in Canada. Since the signing of the Treaty of Rome in 1957, these shares have fallen by at least half, with Canada investing relatively more in Ireland and the Netherlands while, on the flipside, France and the Netherlands are investing relatively more in Canada.

To empirically analyze these stylized facts, the study uses a quarterly panel dataset of trade between Canada and fifteen European Union countries. Estimates based on an export share model (over the 1986 - 2003, 1972 - 2003 and 1960 - 2003 periods) provide some evidence consistent with the idea that increased European economic integration may have helped reduce Canada’s relative exports to the EU, and most notably, the United Kingdom. More specifically, while fundamental trade determinants (i.e., relative price competitiveness and relative income over the period) explain about half of the EU’s declining share of Canadian exports over the period, the United Kingdom, in particular, also played a separate, but important, role (roughly explaining the other half). A dummy variable for the Canada-United Kingdom country pair takes a relatively large positive parameter, indicative of the UK’s relatively strong trade ties with Canada. In addition, a linear trend for the United Kingdom takes a negative and highly statistically significant estimated parameter, reflecting the UK’s gradually declining relative importance in terms of Canada’s exports. At the same time, a single trend variable included for all other EU countries (excluding the UK) takes a very small statistically significant negative parameter. This result is consistent with the fact that Canada’s exports to the EU, excluding the United Kingdom, only gradually trended down over the period.

Clearly, the evolution of Canada-United Kingdom trade has been an important influence in this downward trend. Within the context of generally weakening historical ties between the two countries, evidence suggests that the UK’s declining importance to Canadian exports was caused primarily by the UK’s increased economic integration with Western Europe, as mentioned previously. As a result of this process of integration, Canada lost its preferential trade treatment by the United Kingdom. However, at the same time, the EU’s share of Canadian exports may also have been affected by increased Canada-United States economic integration (e.g., the 1965 Canada-U.S. Auto Pact, the 1989 Canada-U.S. Free Trade Agreement and the 1994 North
American Free Trade Agreement). To the extent these factors increased Canadian exports to the United States, they would also reduce the European Union’s relative export importance. Our results suggest that, when increased Canada-United States trade is accounted for, however, Canada’s export share to the EU, excluding the United Kingdom, has been stable over the past fifty years while that of the UK has trended down.

In summary, our analysis suggests that while increased European economic integration does not appear to have resulted in a decline in the general EU-wide trade with Canada since the 1950s, it has nevertheless played a very significant role in regards to Canada’s exports to the United Kingdom. Indeed, given that a similar decline occurred in the former British colonies of Australia and New Zealand, evidence suggests that the majority of the decline in Canada’s relative exports to the EU was caused by the UK’s growing economic integration with the rest of Europe. In the end, it appears that there was some validity to the concern expressed by L.D. Wilgress in 1962 (as quoted at the beginning of this paper), at least in terms of export shares. Indeed, the loss of Canada’s former preferential trade treatment under the British Commonwealth proved to be an important factor in this regard.

Looking toward future research, the empirical analysis of this paper could be extended to utilize a larger sample of country pairs, subsuming the indirect effect on Canada-EU trade caused by bilateral trade with and between other countries (e.g., intra-EU trade; extra-EU trade with countries such as the United States, Japan, Switzerland and China). As a result, such an expanded model would better capture the effect of increased European economic integration while also controlling for other factors such as increased North American economic integration and the recent favourable supply-side developments in China. As shown in the stylized facts section, EU trade with Asia has been on the rise, especially with China. Indeed, the increase in relative price competitiveness resulting from favourable supply-side developments in China contribute, other things being equal, to increased trade with that country, while possibly reducing trade with other trading partners. These facts draw attention to the importance of accounting for any significant change in extra-European trade patterns resulting from factors unrelated to European integration.

Dependent on available data, future research could also account for EU trade with the ten new European Union member states. Indeed, although significant trade agreements were reached in the early 1990s between the EU15 and the ten future members, their accession to the EU in May of 2004 marked another large step toward European economic integration.
Bibliography


Appendix A: Data Description

This appendix describes the data mnemonics used in this paper. Data are taken from Statistics Canada, OECD (2004), BIS, and IMF databases. All time-series mnemonics consist of an “economic variable” component, as shown in the table below. Each mnemonic also contains a second component that denotes the country.

<table>
<thead>
<tr>
<th>Mnemonic</th>
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<tr>
<td><strong>M&lt;country&gt;</strong></td>
<td>Value of merchandise imports</td>
</tr>
<tr>
<td><strong>ner&lt;j&gt;&lt;i&gt;</strong></td>
<td>Nominal bilateral exchange rate between country j and i (+: appreciation of currency i versus currency j), expressed as an index (2000=100)</td>
</tr>
<tr>
<td><strong>neer&lt;i&gt;</strong></td>
<td>Nominal effective exchange rate of country i (+: appreciation of currency i versus its main trading partners), expressed as an index (2000=100)</td>
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<tr>
<td><strong>P&lt;country&gt;</strong></td>
<td>GDP price deflator (2000=100)</td>
</tr>
<tr>
<td><strong>PC&lt;country&gt;</strong></td>
<td>Consumer price index (2000=100)</td>
</tr>
<tr>
<td><strong>PM&lt;country&gt;</strong></td>
<td>Goods import price deflator (2000=100)</td>
</tr>
<tr>
<td><strong>PX&lt;country&gt;</strong></td>
<td>Goods export price deflator (2000=100)</td>
</tr>
<tr>
<td><strong>Pw</strong></td>
<td>World price deflator (2000=100)</td>
</tr>
<tr>
<td><strong>X&lt;country&gt;</strong></td>
<td>Value of merchandise exports</td>
</tr>
<tr>
<td><strong>Y&lt;country&gt;</strong></td>
<td>Real GDP</td>
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<th>&lt;Country&gt; Component</th>
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<td><strong>EU15 Countries</strong></td>
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<tr>
<td><strong>Other Countries</strong></td>
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37. Note that any Canadian statistics taken from OECD (2004) were originally collected by Statistics Canada and supplied to the OECD.
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Canadian Imports by Country
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(Share of Total Canadian Imports From the EU15)

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EU Exports by Country
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Per cent

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(Share of Total EU Imports)
Figure 11
EU Imports by Country
(Share of Total EU Imports)

Per cent


Figure 12
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Per cent


* Four largest EU trading partners.
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Germany
The Netherlands
UK

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Fundamental Determinants of Canadian Exports to the EU*

<table>
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<th>Line Type</th>
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<td>---</td>
<td>Canadian Exports to the EU Excl. UK (Share of Total Exports)</td>
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<tr>
<td>---</td>
<td>EU Real GDP (Share of World Real GDP)</td>
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<td>---</td>
<td>Relative Canada-EU Bilateral Real Exchange Rates**</td>
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* Simple average of individual EU15 countries.
** + (-) appreciation (depreciation) of the Canadian dollar.